

82975

S/142/60/003/002/015/022
E192/E382

A Class of Surface-wave Antennae Employing the Radiation Due to the Transverse Curvature of a Directive Waveguide

type. Two further types of antenna are shown in Fig. 5, where the radiation occurs in the regions of large curvature. In the remaining regions the radiation is low due to insignificant curvature of the waveguide. There are 6 figures and 2 Soviet references. ✓

ASSOCIATION: Moskovskiy ordena Lenina aviatsionnyy institut
im. Sergo Ordzhonikidze (Order of Lenin Moscow
Aviation Institute im. Sergo Ordzhonikidze)

SUBMITTED: November 20, 1959

Card 2/2

9.1200

AUTHOR: Neuman, M.S.

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TITLE: A Class of Surface-wave Antennae Employing the Radiation Due to the Transverse Curvature of a Directive Waveguide

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Vol. 3, No. 2, pp 281 - 282

TEXT: Three classes of surface-wave antennae are known (Refs. 1, 2). A new class of such antennae is considered. In these, the radiation is produced due to the curvature of the waveguides which carry the surface waves. Here, the directing surface can be a plane. Fig. 1 show the cross-section of several simple surface-waveguides. An example of the antennae built from such waveguides is shown in Fig. 2; these antennae are in the form of rectangular waveguides which carry incident surface waves in one direction and have transverse curvature in one or two regions. Another type of antenna is shown in Fig. 3. By means of these devices it is possible to secure a uniform radiation in the plane of the antenna. Fig. 4 illustrates other possibilities whereby it is possible to obtain patterns near to the cosec

Card 1/2

NEUMAN, MAUR

Antiticticle. Autori: Un. Bursatani (Ed. 3)

Bucuresti, Rumania, Editura Medicala, 1958. 167 p.

Monthly list of European Accession Index (EAI) IC Vol. 3, No. 11
November 1959
Incl.

NEUMAN, M.

Hormone therapy of infectious diseases. Med. int., Bucur. 9 no.12:1849-1858 Dec 57.

(COMMUNICABLE DISEASES, therapy
adrenal cortex hormones)
(ADRENAL CORTICAL HORMONES, ther. use
infect. dis.)

NEUMAN, M., Dr.; CONSTANDACHE, D., dr.; RADULESCU, Laura, dr.

Clinical and therapeutic aspects of acute lung diseases caused
by Friedlander bacilli. Med. int., Bucur. 9 no.4:594-596 Apr 57.

1. Lucrare efectuata in Clinica de boli infectioase I.M.F.,
Bucuresti (prof. M. Voiculescu).

(PNEUMONIA, case reports

Klebsiella pneumoniae infect., acute, pathol. & ther.)

Country : ROMANIA
 Category : Pharmacology and Toxicology. Miscellaneous
 Preparations
 Abs. Jour. : Ref Zhur-Biol, No 13, 1978, No 6150
 Author : Neuman, N.
 Institut. :
 Title : Ortochalcid Substances
 Orig Pub. : Vopr Med., 1977, 4, No 1, 75-92
 Abstract : No abstract.

Card: 1/1

NEUMAN, M., Dr.; TIUCRA, A., dr.; CARUNTU, F., dr.; RADVAN, Aglaia, dr.

Total and segmental pylephlebitis; clinical study of three cases.
Med.int., Bucur. 8 no.6:899-903 Oct 56.

1. Lucrare efectuata in Clinica de boli infectioase, Spitalul
contagiosi Colentina.

(VEINS PORTAL SYSTEM, diseases
pylephlebitis, case reports)
(PHLEBITIS, case reports
pylephlebitis)

NEUMAN, M., Dr.

Complications and contraindications in chemotherapy and
antibiotic therapy. Med. int., Bucur. 8 no.4:483-496 Aug
56.

1. Lucrare efectuata in Clinica de boli infectioase, Bucuresti.
(ANTIBIOTICS
ther. contraindic. & inj. eff.)
(CHEMOTHERAPY
contraindic. & compl.)

NEUMAN, Maur; RADWAN, Agla

~~Neuman, Maur; Radwan, Agla~~

Immunological study of viral (inframicrobial) interstitial
pneumonia. Bul. stint., sect. med. 8 no.2:399-415 Apr-June 56.

(PNEUMONIA, PRIMARY ATYPICAL, immunol.
interstitial inframicrobial pneumonia & other types)

NEUMAN, Maur, Dr.; CARUNTU, Florin; RADVAN, Aglaia

Leuko-agglutinin in immunological leukopenia and agranulocytosis.
Med. int., Bucur. 8 no.2:248-257 Apr-May 56.

(AGRANULOCYTOSIS, immunology
leuko-agglutinin, in immunol. agranulocytosis)
(LEUKOCYTE COUNT
leukopenia, immunol., leuko-agglutinin in)
(HEMAGGLUTINATION
leuko-agglutinin in immunol. agranulocytosis &
leukopenia)

EXCERPTA MEDICA Sec. 6 Vol. 11/9 Sept. 57

NEUMAN M.

5036. NEUMAN M., IONESCU R. and ISAC B. Clin. Bolilor Contagioase Spit. Colentina, Bucuresti. "Meningitele cu piocianic. Considerații clinice și terapeutice. Meningitis caused by *Ps. aeruginosa*; clinical and therapeutical considerations VISTA MED. (Bucarest) 1956, 3/5 (53-58) Graphs 1

The agent is resistant to streptomycin in 60% of the cases, to chlortetracycline and chloramphenicol in 90% and to oxytetracycline in 45%. Before institution of treatment of a case of meningitis due to *Ps. aeruginosa*, the germ must be isolated and tested in vitro for its sensitivity to the various antibiotics, first separately, then in combinations. The products selected must be administered generally and intrathecally at the same time. It is emphasized that the treatment must be continued for a considerable period and frequent control examinations, e. g. of the CSF, are necessary. The recommended treatment consists in a combination of several chemotherapeutics: sulphonamides (12-14 g. per day), streptomycin, 2-3 g. per day i. m. and 100-200 mg. intrathecally. Occasionally, addition of chloramphenicol and of tetracycline, 2-3 g. per day, may be useful. Blood transfusions may be given as supportive treatment. Three cases are described, 2 of them ending in recovery.

Schachter - Marseilles (XX, 6, 7, 8)

APPROVED FOR RELEASE: 12/02/11: CIA-RDP86-00513R001136700013-6

NEUMAN, Ladislav, inc.

We are modernizing the motortrucks. Still delivery 12 no. 10
10-12 Ja '64.

NEUMAN, Karel

A contribution to osteoma of the maxillary sinus. Cesk. otolar. 10
no.4:243-245 Ag '61.

1. Klinika nemoci usnich, nosnich a krcnich lekarske fakulty KU v Plzni,
prednosta prof. dr. F. Kotyza.

(MAXILLARY SINUS neoplasms) (OSTECMA case reports)

NEUMAN, K.

Medical history of the author

Our experiences with local therapy of chronic otitis media with antibiotics. Cesk. otolar. 8 no.4:198-202 Aug 59.

1. Klinika nemoci usnich, nosnich a krcnich v Plzni, prednosta prof. F. Kotyza.

(OTITIS MEDIA, ther.) (ANTIBIOTICS, ther.)

NEUMAN, Karel, MUDr.

~~Staphylococcal enterocolitis in postoperative period.~~
Staphylococcal, enterocolitis in postoperative period. Cesk. otol.,
6 no.4:233-239 Aug 57.

1. Z otolaryngologické kliniky lékařské fakulty v Plzni, přednásto
prof. Dr F. Kotyza.

(COLITIS, etiol. ? Pathogen.

Micrococcus pyogenes postop. enterocolitis (Cz.)

(MICROCOCCAL INFECTIONS, case reports

postop. enterocolitis (Cz))

SHIM, K.; HAN, K. I.; KANG, J.

"Collecting bones for industrial purposes."

SIJESCH, JOSEF. Praha, Czechoslovakia. Vol. 6, no. 10, 1956

Monthly list of East European occasions (R II), 16. Vol. 9, No. 7, Aug 68, Prague

NEUMAN, J.

RESOURCES - 1971-1972

Some exhibits of interest to metallurgists at the 1964 Bronx
International Fair. Est. Date 19 00.00:00-00:00 1 16.

NEUMAN, I.M., prof. (Moskva)

Some controversial aspects of the etiology and pathogenesis of
malignant tumors. Pat.fiziol. i eksp. terap. 2 no.3:10-13
My-Je '58 (MIRA 11:7)
(NEOPLASMS, etiology and pathogenesis,
review (Rus))

RACOVEANU, V.; NEUMAN, H.; ANGHELIDE, R.; TANASEANU, M.

On the value of neurological signs in the diagnosis of tumours of the middle ear. Romanian M. Rev. 3 no.1:72-74 Jan-Mar 59.

(EAR, MIDDLE, neoplasms

diag. value of neurol. signs)

(NERVOUS SYSTEM, in various dis.

cancer of middle ear, diag. value of neurol. signs)

REINHARDT, T., dr.; REINHOLD, J., dr.; REINHOLD, J., dr.
REINHOLD, J., dr.

Post-traumatic Parcel Analysis: A Preliminary Investigation
9 no. 48345-349 1993 14

1. Lucrare efectuată în Clinica a II-a de Fiziologie, București.

BENETATO, Gr.; VITEBSCHI, V.; NEUMAN, E.; BUDAI, R.

Study of the neurohumoral mechanism of regulation of immunobiological processes. Bul. stint., sect. med. 8 no.2:327-337
Apr-June 56.

(IMMUNITY

neurohumoral mechanism of regulation of immunobiol. processes, eff. of adrenalectomy, adrenal hormones & neuroplegic drugs, in rats)

(RETICULOENDOTHELIAL SYSTEM, physiol.

(SAME))

(ADRENAL GLANDS, physiol.

eff. on regulation of immunobiol. processes, in rats)

(CHLORPROMAZINE, eff.

on neurohumoral regulation of immunobiol. processes, in rats)

MARTIN, J.; BRADESCU, G.; HUGHES, A.; NEUMAN, C.

Economic aspects of the activity of the Gen. and Det.
Machine-tractor Stations, Banat region, during the period
1953-1962. Mec. electrif. agric. 8 no. 5: 7-15. S.O. 1963.

APPROVED FOR RELEASE: 12/02/11: CIA-RDP86-00513R001136700013-6

NEUMAN, Bogdan (Warszawa)

Present state of the aggregate industry. Przegl budowl i bud mieszk
35 no.3:140-142 Mr '63.

NEUMAN, Alois, dr.

Development of telecommunications in the third Five-Year Plan.
Slaboproudý obzor 21 no.4:193-194 Ap '60. (EEAI 9:8)

1. Ministr spoju.
(Czechoslovakia--Telecommunication)

NEUMAN, Alois, dr.

Development of our telecommunication. Nova technika no.8:337-340 '60.

1. Ministr spoju.

1.1.1.1, 4.

For further development of ...
... ..

3. Partially list of
Encl.

NEUMAN, A.

Problem of effort in pulmonary tuberculosis. Gruzlica, Warsz.
19 no. 4:517-533 July-Aug. 1951 (CLML 21:3)

1. Of the Department of Rehabilitation (Head--A. Naumann, M. D.)
of the Institute of Tuberculosis (Director--Prof. Docent J.
Misiewicz, M. D.) and of the Sanatorium imienia Felix Dzierzynski
(Director--R. Kaliniwski, M. D.) of the National Complex of San-
atoria in Otwock.

NEULYBINA, A.A.

Neuliybina, A.A. (1918-1963) - Soviet geologist.

Natural resources of the Kungur Production Administration and
ways to use them. Uch. zap. Perm. gos. un. 101:80-86 '63
(MIRA 18:2)

NEULINGER, Z.

"Longwall Mining In The Light Of Planning" p. 129. (Przegląd Gorniczy, Vol. 9, no. 4, Apr. 1953, Katowice)

East European Vol. 3, No. 2,
SO: Monthly List of Russian Accessions, Library of Congress, February, 1954, ~~1953~~ Uncl.

NEULINGER, Z.

"A Review of Recent Soviet Inventions in the Field of the Mechanization of Coal Mines" p. 218

"Mechanizing the Building of Walls in Mines in the USSR" p. 222
(Wiaomosci Gornicze, Vol. 4, No. 7/8, July/Aug., 1953, Katowice)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress,
February, 1954, Uncl.

NEULINGER, Z.

"Sixty Shifts Work a Month at the Coal Face" p. 183 (Wlasnoscaci Gornicza, Vol. 4,
No. 6, June, 1953, Katowice)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress,
February, 1954, Uncl.

NEULINGER, Z.

"How to Economize on Pit Props" (Wiaomosci Gornicza, Vol. 4, No. 4, May, 1953, Katowice)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress,
February, 1954, Uncl.

NEULINGER, Z.

Polish Technical Abstr.
No. 1 1954
Mining

4594

(1)

622.271.12 : 658.53

✓ Neulinger Z. Longwall Mining in the Light of Planning.

Wzrostanie szanowe w zakresie planowania. Przegląd Górnictwa.
No. 4, 1953, pp. 142-145, 5 figs.

A formula for computing, with a view to achieving planned output figures, the face length in several workings; computations are based on the average value of working cycles, the depth of shear and output capacity, as well as on the knowledge of the thickness of the seam and the specific gravity of the mineral. Example of adapting the formula to three different longwall in various seams.

NEULINGER, Z.

Fuel Abstracts
Vol. XV, No. 2
Feb. 1954
Natural Solid
Fuels: Winning

1-992. LATEST SOVIET NEWS ON COAL MINE MECHANIZATION. Neulinger, Z.
(Wlad. Gorn. (Min. Ind.), July/Aug. 1953, 218-222). Short illustrated
descriptions are given of several Soviet machines, including the K-14
cutting-loader of which a prototype is working in the Moscow Region. It is
intended for seams 1.5 to 3.5 m thick and has a horizontal shield above it,
on hydraulic props, to support the roof. (L).

NEJLANDER, A.

BACIU, I.; IANCU, Ax.; MARCUTIU, V.; NEJLANDER, A.; PATIU, Z.

Studies of blood proteins and protein fractions in dystrophic infants. I. Effect of acidulated protein-enriched milk in the diet. Bul. stiint., sect. med. 8 no.3:747-762 July-Sept 56.

1. Comunicare prezentata de academician Gr. Benetate in Sesiunea generala stiintifica a Academiei R.P.R., in sedinta din 30 iunie 1955.

(INFANT NUTRITION DISORDERS, ther.
acidulated protein-enriched milk in inf. dystrophy,
eff. on blood proteins)

(MILK, ther. use
acidulated protein-enriched milk diet in inf.
dystrophy, eff. on blood proteins)

(PROTEINS, ther. use
protein-enriched milk in inf. dystrophy, eff. on
blood proteins)

IANCU, A.; NEULANDER, A.

Study of the characteristics of rheumatism in children treated
at the Pediatric Clinic no. I of Cluj. Probl. reumat., Bucur.
Vol. II:221-248 1954.

(RHEUMATISM, in inf. & child
in Rumanian child., etiol., compl. & ther.)

NEUHORN, U.

- POLAND/Chemical Technology. Chemical Products. Safety Engineering.H-6
Sanitation Engineering.

Abs Jour : Ref Zhur - Khimiya, 1958, No 22, 74466

Author : Dutkiewicz T., Paluch J., NeuhornU.

Inst : Not Given

Title : Comparison of Toxicities of Ceramic Glazings of High and Low Lead Contents.

Orig Pub : Med. press, 1957, 6, No 6, 389-398

Abstract : Experiments were conducted on 6 rabbits and consisted in the intertracheal introduction of the ceramic glazing compound containing varying amounts of Pb. The dust of $\leq 5 \mu$ particle size suspended in a 99% physiological solution was administered to the two groups of animals in the 15-16 mg/kg dosages of high Pb content (I group) and of low Pb content (II group). This corresponded respectively to 57 and 10% of Pb expressed as PbO. It was found that the Pb content of urine of animals of the first group has increased by a factor of 40, and that of animals of the second group by a

Card : 1/2

BRADA, Ferenc; LORINCZ, Imre; KATONA, Janos; PICHLER, Ferenc; CZEGLÉDY,
Károly; NEUHOF SUSKI, László

Miniature and transistor electric-circuit parts; also, remarks by
E.Lorinc and others. Muszaki kozl MTA 26 no.1/4:301-319 '60.
(EEAI 9:10)

1. Remix Radiotechnikai Gyar (for Brada)
(Electric circuits) (Transistors)

NEUHOF SUSKI, Laszlo; DEAK, Pal; RATKY, Laszlo; BRADA, Ferenc; KATONA, Janos; KONDASZ, Istvan

Research on single- and multicomponent-crystalline carbon-layer resistance; crystalline coal-layer and boric-carbon resistance. Also, remarks by P.Deak and others. Muszaki kozl MTA 26 no.1/4: 269-295 '60. (EEAI 9:10)

1. Híradastechnikai Ipari Kutató Intézet (for Neuhof Suski)
 - (Electric resistors)
 - (Carbon)
 - (Boron)
 - (Crystals)

L 34176-66 EWP(k)/T/EWP(t)/ETI IJP(c) JD/HW/DJ

ACC NR: AP6026077

SOURCE CODE: HU/0014/66/005/004/0146/0152

AUTHOR: Neuhoffer, Erno (Chief engineer)

ORG: none

TITLE: Modern methods for manufacturing tin-plate and trends of development [This paper was presented at the Cold Forming Conference held in Salgotarjan, Hungary, on 20 January 1965.]

SOURCE: Kohassati lapok, no. 4, 1966, 146-152

TOPIC TAGS: tin plating, hot rolling, cold rolling, metal finishing, industrial production, metallurgic industry, metallurgic process, industrial development

ABSTRACT: The methods of modern tin-plate manufacturing (steel production, hot-rolling, cold rolling, steel-plate finishing, fire tinplating, electrolytic tin-plating, Ferrosan lines, halogen lines, and alkali lines) and trends of modern development in tin-plate production (novel utilizations, increasing roll speeds, decreasing plating thicknesses, patterned coatings, economic improvements, double-rolling, and increased manufacturing efficiency) were summarized briefly and illustrated with data and figures quoted from the relevant literature. Orig. art. has: 11 figures and 3 tables. [JPRS: 36,646]

SUB CODE: 13, 05 / SUBM DATE: none / ORIG REF: 001 / SOV REF: 001

OTH REF: 005
Card 1/1 BLG

UDC: 546.811.621.413/419:658.29.001.6

NEUHOFER, Erno, fomernok (Borsodnadasd)

Remark about the article by Endre Szucs entitled "Some economic questions relating to the development of corrosion-resistant steels and their manufacture in Hungary." Koh lap 96 no.8:381-382 Ag '63.

NEUHOFFER, Erno

Manufacture of light sheets used in electrical engineering. Kon
lap 96 no.12:547-551 D '63.

APPROVED FOR RELEASE: 12/02/11: CIA-RDP86-00513R001136700013-6

NEUHOFFER, Erno

Manufacture of electrotechnical thin sheets. Koh lap 96 no.11:
485-490 N'63.

APPROVED FOR RELEASE: 12/02/11: CIA-RDP86-00513R001136700013-6

NEUHOFER, Erno

Dynamo and transformer sheet manufacture. Pt. 1. Koh lap
12 no. 7:289-291 J1 '57.

NEUHOFER, Erno

Production technology of ferromagnetic substances used in
high-voltage electric machines. Pt. 2. Koh lap 12 no. 10:
455-459 0 '57.

NEUNOFFER, E.

Manufacturing technology of ferromagnetic materials in high-tension electric machinery. II. Theoretical foundations.

P. 455. (KOHASZATI LAPOK.) (Budapest, Hungary) Vol. 12, No. 10, Oct. 1957

SO: Monthly Index of East European Accession (MEAI) LC. Vol. 7, No. 8, 1958

DUPLINSZKY, Ede; NEUHOF SUSKI, Laszlo

New ceramic substrates for manufacturing resistors. *Hir* 1964 no.3:86-89 Mr '64.

1. Central Research Institute of Building Materials Industry, Budapest (for Duplinszky).
2. Research Institute of the Telecommunication Industry, Budapest (for Neuhoof Suski).

CZECHOSLOVAKIA

NEUHÄUSLOVA-NOVOTNA, Zdenka; Botanical Institute of the Czechoslovak Academy of Sciences (Botanický ústav Československé akademie věd,) Prahonice.

"Problems of Phytocenologic Classification of Oak and Beech Forests."

Bratislava, Biologia, Vol 18, No 9, 1963; pp 663-673.

Abstract [German summary modified]: Comprehensive review of oak and beech tree substrains and their associations, especially Carpinion sp., in Czechoslovakia. About 30 Czech and German-language references, including a number 'in press.'

APPROVED FOR RELEASE: 12/02/11: CIA-RDP86-00513R001136700013-6

HEJNY, S., dr.; NEUHAUSL, R.

Biological basis for the protection and development of a healthy
area. Vestnik CSAV 71 no.4:435 '62.

APPROVED FOR RELEASE: 12/02/11: CIA-RDP86-00513R001136700013-6

NEUHAUSL, Robert

A contribution to studies of the general problems of limnobotany.
Biologia 15 no.5:377-390 '60. (EEAI 9:11)

1. Geobotanicka laborator zakladny Ceskoslovenske akademie ved.
Brno.
(FRESH-WATER FLORA)

NEUHAUSL, R.: TOMSOVIC, P.

"More notes on the systematics and occurrence of water lilies in Bohemia."

P. 288. (Ministerstvo kultury. Statni pece o ochranu prirody --Praha, Czechoslovakia.)
Vol. 12, no. 10, Dec. 1957.

SO: Monthly Index of East European Accession (MEAI) LC, Vol. 7, No. 5, May 1958

NEUHAUSL, R.

"Outline of the regional and vegetative conditions in the southeastern part of the
Trebou basin."

P. 227. (Ministerstvo kultury. Statistické údaje o ochraně přírody --Praha, Czechoslovakia.)
Vol. 1, no. 8, nov. 1927.

S0: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

NEWMAN, R.; POLSKO, J.

Czechoslovak water lilies and their protection. p. 129 (Czechoslovakia
Vol. 11, no. 6, July 1956 Traba)

SO: Monthly List of East European Commission (Soviet) IC, Vol. 6, no. 2, July 1957. Incl.

NEUFANSL, ROMANT.

(Phytocenologic analysis of the association Acornus vulgaris-Carex rostrata in the southern part of the Novy Kancelir zone in the Tatra Basin: a contribution to objective methods of phytocenologic analysis and synthesis. 1st ed. German and Russian summaries. bibl., diagr., footnotes, tables (part fold. in pocket)).

Prague, Czechoslovakia, 1966.

Monthly list of EAST EUROPEAN ACCESSIONS (EMAI), 10, Vol. 6, No. 7, July 1966, Uncl. s.

NEUHAUSI, Emil. inz.

Polyformaldehyde in the automobile industry. Automobil 92 9
no.2:24-29 F '65.

1. State Research Institute of Materials and Technology,
Prague.

Alkaline polyamides

Z/032/63/013/002/002/004
E112/E436

of its use in various industrial branches will be as follows:
engineering - 52%, chemical and food industry - 14%, mining and
metallurgy - 8%, transport - 5%, agriculture - 5%, building - 4%,
textiles - 4%, others - 8%. There are 13 figures and 5 tables.

* ASSOCIATION: Plastimat

Card 3/3

Alkaline polyamides

Z/032/63/013/002/002/004
E112/11436

properties of the polymer can be modified by the addition of filler or by copolymerization with C-methyl-caprolactam. In a pilot plant constructed of Al, the output of polyamide in 8 hours varies from 90 to 250 kg, according to the type of catalyst. Maximum yields are obtained when Na-caprolactam prepared from caprolactam and metallic sodium is used. Castings are produced by mixing the three ingredients prior to processing and pouring into preheated moulds. Polymerization takes 15 to 45 minutes. Compared with a conventional polyamide (silamide) APA has improved thermal stability, hardness, shear modulus, electrical insulating characteristics and dielectric constant. Its strength, compared to silamide, is slightly reduced. APA is resistant to organic solvents, water, ammonia, amines, alcohols, mineral and vegetable oils, fats, salt solutions and soaps. It is attacked by strong acids, phenols, iodine, ozone and peroxides. Copolymerization with substantial quantities of C-methyl-caprolactam produces polymers with rubberlike characteristics. APA is recommended for materials of construction such as gears, sliding bearings and sealing materials. It is estimated that the extent

Card 2/3

2/032/63/013/002/002/004
B112/5436AUTHOR: Neuhäusel, E., Engineer

TITLE: Alkaline polyamides

PERIODICAL: Strojirenství, v.13, no.2, 1963, 130-138

TEXT: Alkaline polyamides (APA), a new type of polymer, prepared by the base-catalyzed polymerization of 6-caprolactam, was developed. Sodium caprolactam and N-acetylcaprolactam were used as catalyst and cocatalyst respectively. The former was prepared by the action of metallic sodium, or an aqueous sodium hydroxide solution, on 6-caprolactam. The metallic sodium route is preferred, giving improved yields of the polymer. The polymerization rate of the alkaline process is more than hundred times greater than that of the conventional hydrolytic method. A direct polymerization in moulds is therefore feasible. Degree of polymerization is 300 to 800, the content of low-molecular-weight constituents is below 5% and the initial temperature of polymerization is reduced below 140°C. As the temperature of polymerization does not exceed the melting point of the resulting polyamide (220°C), no contraction takes place during cooling and the material is free from stresses. The chemical and mechanical

Card 1/3

NEUGOL'NIKH, V.N.

Changing sexual characteristics in cucumbers in order to increase their productivity. Bot.skur. 40 no.5:715-719 S-O '55.(MIRA 9:4)

1.Meletevskiy gosudarstvennyy universitet.
(Cucumbers)

Structure and properties of the BT8 (VT8) alloy.

S/762/61/000/000/017/029

The VT8 specimens came from a mass-production stock batch containing 6.25% Al, 3.15% Mo, 0.25% Si, and admixtures of 0.11% Fe, 0.048% C, 0.030% N, 0.007% H, and 0.010% O. The $\alpha + \beta \rightarrow \beta$ transformation temperature for the given batch was 1,000°C. Free forging of the specimen rods ran into trouble, hence the following three methods were employed: (1) four-pass hot rolling after one 1,000° heating to obtain an equiaxial two-phase structure; reduction ratio 65%; (2) free forging after one 1,050° heating to obtain an interwoven fine-grain structure; (3) hot pressing at 1,150° to obtain rods with a Widmanstätten-like structure. All specimen billets were twin-annealed by holding at 880° for 1 hour, air-cooling, holding at 590° for 1 hour, and air-cooling. All machining work for a given type of test was done at one time. Details of the tests on the Amsler testing machine are provided. The results of mechanical tests of VT8 alloys with differing structures, including tensile tests at 20 and 500° and for thermal stability (after high-temperature soaking of up to 1,000 hours) and notch-toughness tests, are summarized in a two-page table. Optimal overall mechanical properties in short-duration tensile testing (at 20 and 500°), stress-rupture and creep testing (at 500°), endurance testing (at 20 and 500°), and thermal stability is exhibited by the alloy with a fine-grain interwoven structure. The alloy with two-phase equiaxial microstructure excels by its elevated endurance limit and minimal vibrational notch sensitivity (at 20 and 500°), its good balance of strength and plasticity at room temperature, and its thermal stability. Its stress-

Card 2/3

S/762/61/000/000/017/029

AUTHORS: Neugodova, V.N., Neugodova, Z.N.

TITLE: Structure and properties of the BT8 (VT8) alloy.

SOURCE: Titan v promyshlennosti; sbornik statey. Ed. by S. G. Glazunov. Moscow, 1961, 176-184.

TEXT: The paper describes an experimental determination of the optimal structure, among the many possible ($\alpha + \beta$) structures of the BT8 (VT8) alloy, which helps achieve the most desirable strength properties in semifinished pieces upon heat treatment. Inasmuch as there is no known procedure to correct the random structures resulting from various hot-forging workings, the relationship between structural and strength properties needs clarification, and suitable working procedures must be developed. A composite full-page photographic presentation systematizes the various structures and their respective strength characteristics. Three typical microstructures were selected for more penetrating tests: (1) An $\alpha + \alpha'$ two-phase equiaxial structure; (2) a fine-grain $\alpha + \alpha'$ two-phase interwoven structure; (3) a large-grain structure, resembling a Widmanstätten structure, with an α phase laid along the boundaries of the grains of the formerly existing β solid solution. Phase analysis shows some 6.5% of residual β phase in the VT8 alloy.

Card 1/3

Elaboration of the high-temperature titanium alloy... S/762/61/000/000/018/029

anneal T on the creep characteristics of the alloy is discussed in detail. 5- and 6-component alloys with Si and Zr. The tests (results graphed and summarized in a two-page table) led to the optimal composition stated at the beginning of the abstract and also to the conclusion that alloys prepared with TF0 (TG0) sponge Ti afford better thermal stability and stress-rupture strength than like alloys based on TG1 sponge Ti. The best alloy had a 200-hr 500° stress-rupture limit of 75 kg/mm² and a 100-hr 550° stress-rupture limit of 60 kg/mm². After 100 hrs at 500° and $\sigma = 33$ kg/mm², the residual strain was 0.115%; the slightly impaired thermal stability of this alloy is noted. The compromise VT9 alloy exhibited the following fundamental properties after 1-hr 600° anneal and air cooling: 20° tensile strength - 114-130 kg/mm²; elongation - 9-14%; necking - 25-45%; notch toughness - 3-5 kgm/cm²; H_B 330-365 kg/mm²; static E 12,000 kg/mm²; 10⁻⁷-cycle endurance limit at 20° - ≥ 54 kg/mm², at 500° - ≥ 44 kg/mm²; 100-hr stress-rupture limit at 500° - ≥ 65 kg/mm², at 550° - ≥ 45 kg/mm²; 100-hr creep limit (resid. strain 0.2%) at 500° - 28-30 kg/mm², at 550° - 12-13 kg/mm²; spec. gravity 4.51-4.52. Heat treatment by water quenching at 900-950° and subsequent aging at 500-600° increases the tensile strength of the alloy to 130-150 kg/mm², with an elongation of 5-14% and a necking of 15-35%. Formability of the alloy is good within the 1100-850° T range; the alloy is suitable for forging, rolling, and stamping. There are 23 figures and 3 tables; no identified references except to unpublished work done in 1954-56.

Card 3/3

ASSOCIATION: None given.

Elaboration of the high-temperature titanium alloy... S/762/61/000/000/018/029

furnace; the higher T was used for the alloys with 7-8% Al. Forging was completed at 850-900°C; all specimens forged well, without fissuration. Tests were made after anneal and supplementary aging (100 and 500 hrs at 500°C) to determine their thermal stability. Some thermal-stability tests were performed under HT stress. Stress-rupture and creep tests were made at 500-600° on specimens 5 mm in diam. Mechanical testing of 5-mm diam specimens was done on an Amsler machine with a no-load rate of 11-15 mm/min. Notch-toughness was determined on Mesnager specimens. Alloys of the Ti-Al-Mo-Si system. The subject tests comprised alloys with 6-6.5% Al and 3-3.5% Mo with various Si contents up to 0.7%. The effect of various Si contents with two different grades of sponge Ti are detailed. As a result of these tests the chemical composition of the BT8 (VT8) alloy was altered to specify use of TF0 (TG0) sponge Ti and the introduction of from 0.2 to 0.35% Si. The alteration increased the HT strength of this alloy without loss in plasticity and with some improvement in fatigue characteristics. Alloys of the Ti-Al-Mo-Zr system. The tests (details are summarized) led to the conclusion that an optimal combination of 20° and 500° mechanical properties and thermal stability was achieved with a 6-6.5% Al, 3-3.5% Mo, and 2-3% Zr content. The parent metal was TF1 (TG1) sponge Ti. The characteristics obtained with non-optimal compositions are detailed. Alloys of the Ti-Al-Mo-Sn system. The tests showed that an optimal compromise between the mechanical properties at 20 and 500° was achieved with 6-6.5% Al, 3% Mo, and 2-2.5% Sn. The parent metal was TF1 (TG1) sponge Ti. The effect of

Card 2/3

S/762/61/000/000/018/029

AUTHOR: Neugodova, V.N.

TITLE: Elaboration of the high-temperature titanium alloy BT9 (VT9).

SOURCE: Titan v promyshlennosti; sbornik statey. Ed. by S. G. Glazunov.
Moscow, 1961, 185-202.

TEXT: The paper describes work, done in 1957-58, in the course of the development of the high-temperature (HT) Ti alloy currently termed BT9 (VT9). The target requirements for the new alloy specified the development of a Ti alloy for forging billets and stamping blanks which at 500°C would have a 100-hr stress-rupture strength of not less than 55 kg/mm² and a 50-hr creep limit (with 0.2% residual strain) of not less than 30 kg/mm², and which would manifest satisfactory thermal stability and plasticity at room temperature. The search comprised Ti-Al-Mo systems with Si, Sn, Zr, Sn-Zr, Sn-Si, and Sn-Si-Zr. Optimal characteristics were exhibited by a Ti-Al-Mo-Sn-Si-Zr alloy with 6.3% Al, 3.3% Mo, 2.5% Sn, 0.25% Si, and 2.5% Zr; however, in view of the excessive cost and shortage of supply of Zr, a compromise alloy of the Ti-Al-Mo-Sn-Si system with 5.8-6.8% Al, 2.8-3.8% Mo, 1.8-2.8% Sn, and 0.2 - 0.4% Sn and an $\alpha + \beta$ two-phase structure (appx. 7.5% β) was finally selected and officially designated as the VT9 alloy. Details of the initial materials and of the smelting technique in a vacuum arc furnace are described. The billets were heated to forging T (1,080-1,150°C) in a silit-heater-type electric

Card 1/3

Structure and properties of the BT8 (VT8) alloy.

S/762/61/000/000/017/029

rupture and creep characteristics at 500° are relatively impaired. The alloy with the Widmanstätten-like structure manifests the highest creep resistance (at 500°C) and an average stress-rupture strength, but has the lowest short-duration tensile strength (at 20 and 500°), low endurance and intense vibrational notch sensitivity (at 20 and 500°), and lower thermal stability. The notch toughness of the VT8 alloy appears to be independent of the structure. There are 5 figures and 1 (unnumbered) table; no references.

ASSOCIATION: None given.

Structure and properties of the BT8 (VT8) alloy.

S/762/61/000/000/017/029

The VT8 specimens came from a mass-production stock batch containing 6.25% Al, 3.15% Mo, 0.25% Si, and admixtures of 0.11% Fe, 0.048% C, 0.030% N, 0.007% H, and 0.010% O. The $\alpha + \beta \rightarrow \beta$ transformation temperature for the given batch was 1,000°C. Free forging of the specimen rods ran into trouble, hence the following three methods were employed: (1) four-pass hot rolling after one 1,000° heating to obtain an equiaxial two-phase structure; reduction ratio 65%; (2) free forging after one 1,050° heating to obtain an interwoven fine-grain structure; (3) hot pressing at 1,150° to obtain rods with a Widmanstätten-like structure. All specimen billets were twin-annealed by holding at 880° for 1 hour, air-cooling, holding at 590° for 1 hour, and air-cooling. All machining work for a given type of test was done at one time. Details of the tests on the Amsler testing machine are provided. The results of mechanical tests of VT8 alloys with differing structures, including tensile tests at 20 and 500° and for thermal stability (after high-temperature soaking of up to 1,000 hours) and notch-toughness tests, are summarized in a two-page table. Optimal overall mechanical properties in short-duration tensile testing (at 20 and 500°), stress-rupture and creep testing (at 500°), endurance testing (at 20 and 500°), and thermal stability is exhibited by the alloy with a fine-grain interwoven structure. The alloy with two-phase equiaxial microstructure excels by its elevated endurance limit and minimal vibrational notch sensitivity (at 20 and 500°), its good balance of strength and plasticity at room temperature, and its thermal stability. Its stress-

Card 2/3

S/762/61/000/000/017/029

AUTHORS: Neugodova, V.N., Neugodova, Z.N.

TITLE: Structure and properties of the BT8 (VT8) alloy.

SOURCE: Titan v promyshlennosti; sbornik statey. Ed. by S. G. Glazunov. Moscow, 1961, 176-184.

TEXT: The paper describes an experimental determination of the optimal structure, among the many possible ($\alpha + \beta$) structures of the BT8 (VT8) alloy, which helps achieve the most desirable strength properties in semifinished pieces upon heat treatment. Inasmuch as there is no known procedure to correct the random structures resulting from various hot-forging workings, the relationship between structural and strength properties needs clarification, and suitable working procedures must be developed. A composite full-page photographic presentation systematizes the various structures and their respective strength characteristics. Three typical microstructures were selected for more penetrating tests: (1) An $\alpha + \alpha'$ two-phase equiaxial structure; (2) a fine-grain $\alpha + \alpha'$ two-phase interwoven structure; (3) a large-grain structure, resembling a Widmanstätten structure, with an α phase laid along the boundaries of the grains of the formerly existing β solid solution. Phase analysis shows some 6.5% of residual β phase in the VT8 alloy.

Card 1/3

NEUGODOVA, V.N.

Investigating titanium-base alloys for work at above 1400°
temperatures. Titan i ego splavy no.3:74-78 '60.

(MIRA 13:7)

(Titanium alloys--Testing) (Metals at high temperatures)

NEUGODOVA, V.N.

Metallographic method of determining the oxygen and nitrogen
impurities content in titanium and its alloys. Titanium
specimen no. 1:91-98 '58. (MIRA 14:5)

1. Ministerstvo aviatsionnoy promyshlennosti SSSR.
(Titanium--Metallography) (Gases in metals)

Titanium and Its Alloys (Cont.)

AB-1

of these graphs is accurate to within $\pm 7^\circ \text{C}$. Fig 10 (2 graphs) shows curves based on 50 heats of VT-2 alloy, reflecting the increase in tensile strength and decrease in elongation (in the normalized condition) as functions of the increase in transformation temperature, which in turn is a function of the oxygen content (Fig. 11, graph). Gas analysis (by the vacuum-extraction method) of two series of heats of VT-2 alloy showed that oxygen is the main impurity causing sharp changes in the transformation temperature of the alloy. In spite of variations in the content of nitrogen (0.03-0.1 percent) and of hydrogen (0.026-0.04 percent), the relationship existing between the transformation temperature of the alloy and the oxygen content was shown to be linear. In the light of this fact and with sufficient gas-analysis data, it is possible to construct a graph for each alloy and for titanium itself, which graph will permit on the basis of the transformation temperature a quantitative determination of the oxygen content under conditions in which the content of other impurities, like nitrogen and hydrogen, remains relatively constant. The metallographic method of determining oxygen content has been adopted by a number of Soviet plants beginning the production of VT-2 alloy. There are 5 figures (graphs and photomicrographs) and 1 reference (Soviet),

Card 21/43

Titanium and Its Alloys (Cont.)

AB-1

heating prior to quenching (unless the heating was done in an inert atmosphere). The sections are then cut and subjected in microanalysis to determine the phase composition at the various quenching temperatures. Results showed that hot-forged arc-furnace Ti quenched at 920° C exists in a two-phase state ($\alpha + \beta$). At 940° there is still some residual alpha titanium, and at 950° the transformation to the beta phase is complete. Thus, the temperature of the $\alpha + \beta \rightarrow \beta$ transformation lies between 940° and 950° C. For hot-forged induction-furnace Ti the temperatures for these three states are 960°, 980°, and 990°; for VT-2 alloy: 975°, 990°, 1000°. The use of control specimens with predetermined combined amounts of oxygen and nitrogen showed the high sensitivity of the metallographic method. It was possible to demonstrate a clear relationship between mechanical properties, transformation temperature, and oxygen content. It was also shown that the presence of nitrogen and hydrogen has little effect on variations in the transformation temperature because of their more or less constant content [in the test samples]. Figs. 8 and 9 (graphs) show the dependence of tensile strength and hardness on the temperature of the $\alpha + \beta \rightarrow \beta$ transformation in arc-furnace and induction-furnace titanium. The transformation temperature as determined on the basis

Card 20/43

Titanium and Its Alloys (Cont.)

AB-1

Neugodova, V.N. (Ministry of the Aircraft Industry of the USSR)
 Metallographic Method of Determining the Degree of Contamination
 of Titanium and Its Alloys with Oxygen and Nitrogen 91

In her investigation the author succeeded in developing a rapid and simple metallographic method for determining the combined amount of oxygen and nitrogen in Ti and its alloys. The method takes advantage of the polymorphous character of the metal (α -phase below 885° C, β -phase above 885°). Impurities and alloying elements create a two-phase transition interval ($\alpha + \beta$), some elements raising the transformation temperature, others lowering it. Thus the temperature of the complete $\alpha + \beta \rightarrow \beta$ transformation is determined by the resultant action of all elements present in solid solution. In essence, the metallographic method consists in determining the temperature of the complete $\alpha + \beta \rightarrow \beta$ transformation by microanalysis of the water-quenched specimens and a comparison of the temperature thus determined with that established for the given type of titanium or Ti alloy. The specimens are successively quenched at various temperatures close to the probable transformation temperature. Before preparing the microsections it is necessary to remove the surface layer (up to 1 mm) of the specimens because of oxygen taken up from the air during

Card 19/43

NEUGODOVA, V. N.

18(2)

PHASE II - ABSTRACTS

AB-1

Akademiya nauk SSSR. Institut metallurgii

Titan i yego splavy; metallurgiya i metallovedeniye (Titanium and Its Alloys; Metallurgy and Physical Metallurgy) Moscow, Izd-vo AN SSSR, 1958. 209 p. 4,000 copies printed.

Resp. Ed.: N.V. Ageyev, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: V.S. Rzheshnikov; Tech. Ed.: A.A. Kiseleva.

INTRODUCTION: This book, of which a Phase I Exploitation (SOV/1200) has been prepared, is a collection of scientific papers devoted to the study of titanium and its alloys from three main points of view: physical metallurgy, forming, and welding. Special problems investigated include structural changes occurring during welding, determination of the content of harmful gases, development of industrial methods of rolling, and oxidation at various temperatures.

PART I. PHYSICAL METALLURGY

Card 1/43

NEUGODOVA, V. N.,

"Metallographic Method of Determining the Degree of Contamination of Titanium and Its Alloys with Oxygen and Nitrogen," Titan i yego splavy; metallovedeniye i metallovedeniye (Titanium and Its Alloys; Metallurgy and Physical Metallurgy), Moscow, Izd-vo AN SSSR, 1958. p 91

(Ministry of the Aircraft Industry of the USSR)

MAZAYEVA, M. M., kand. khimicheskikh nauk; NEUGODOVA, O. V.

Importance of magnesium fertilizers for light turf-Podzolic
soils. Zemledelie 24 no.12:65-69 D '62.
(MIRA 16:1)

1. Nauchnyy institut po udobreniyam i insektofungisidam imeni
prof. Ya. V. Samoylova.

(Podzol) (Plants, Effect of magnesium on)

MAZAYEVA, M. M.; NEUGODOVA, O. V.

Trilonometric determination of available magnesium in soils
with a low content of exchangeable bases. Pochvovedenie no.7:
100-104 J1 '62. (MIRA 15:10)

1. Nauchnyy institut po udobreniyam i insektofungisidam.

(Soils—Magnesium content)

MAZAYEVA, M.M., kand.khim.nauk; NEUGODOVA, O.Y.; KHOVANSKAYA, K.M.

Trilonometric method applied in the agrochemical analysis of
calcium and magnesium. Zemledelie 8 no.11:71-75 N '60.

(MIRA 13:10)

1. Nauchnyy institut udobreniy i insektofungitsidov (for Neugodova,
Khovanskaya).

(Soils--Calcium content)

(Soils--Magnesium content)

VYSHELESSKIY, A.N., prof.; CHUKAYEV, D.S., prof.; KOMAROV, N.S., prof.;
SENATOV, I.G., dots.; RYABOV, V.I.; NEUGODOV, Ye.V.; GOROZHANKIN,
M.G.; GAN, M.B., dots., kand. tekhn. nauk, retsenzent; RAYSKIY,
I.D., dots., retsenzent; LIKHAREVA, N.V., kand. tekhn. nauk, re-
tsenzent; SHCHEGLOV, V.P., kand. tekhn. nauk, retsenzent;
RUDOMETKIN, F.I., inzh., retsenzent; BAULIN, V.A., red.; EL'KINA,
E.M., tekhn. red.

[Equipment of public food service establishments; electrical, re-
frigerating, and sanitary equipment] Oborudovanie predpriatii ob-
shchestvennogo pitaniia; elektricheskoe, kholodil'noe i sanitarno-
tekhnicheskoe oborudovanie. Moskva, Gos.izd-vo torg. lit-ry,
1961. 447 p. (MIRA 15:3)

(Restaurants, lunchrooms, etc.--Equipment and supplies)

NEUGODOV, Pavel Sargayevich; GOLOSHCHAPOV, I.M., inzh.-polkovnik, red.;
STREL'NIKOVA, M.A., tekhn.red.

[Reconditioning parts of wheeled and caterpillar machines]
Vosstanovlenie detalei kolesnykh i gusenichnykh mashin. Moskva,
Voen.izd-vo M-va obor.SSSR, 1959. 351 p. (MIRA 12:9)
(Motor vehicles--Maintenance and repair)

L 27998-66 EWP(j)/EWT(m)/T RM

ACC NR: AP6009874

(A)

SOURCE CODE: UR/0413/66/000/004/0069/0069

INVENTOR: Savitskiy, A. V.; Skachilova, S. Ya.; Neugodov, P. P.; Ratushenko, G. V.;
Arkhipova, Z. V.; Falev, V. M.; Badayev, V. K.

ORG: none

TITLE: Preparation of polyolefins¹⁶ Class 39, No. 178982. [announced by State
 Scientific-Research Institute of Polymerization Plastics, Experimental Plant
 (Gosudarstvennyy nauchno-issledovatel'skiy institut polimerizatsionnykh plastmass,
 eksperimental'nyy zavod); Central Scientific-Research Laboratory of Reagents
 (Tsentral'naya nauchno-issledovatel'skaya laboratoriya reaktivov)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 69

TOPIC TAGS: olefin, polymerization, polymer

ABSTRACT: An Author Certificate has been issued describing a method of obtaining polyolefins by polymerization of Alpha-olefins in a medium of an inert hydrocarbon solvent with heating in the presence of a catalyst consisting of a mixture of dialkylaluminum chloride and a heavy metal compound. To speed up the process of polymerization and expand the variety of heavy metal compounds, chelate derivatives of orthovanadic acid are suggested under the general formula $VO(OR)(OX)_2$, where R is the hydrogen or alkyl and X is the remainder of the chelating agent. Methylene ether of vanadium orthohydroxyquinadate is the chelate derivative of orthovanadic acid suggested

for use

SUB CODE: 0711/

SUBM DATE: 13Aug64

UDC: 678.742

Card 1/1

NEUGODOV, P. P.

Cand Tech Sci - (diss) "Search for formulation, study of properties and development of technology of preparing articles of anti-corrosion cast graphite plates." Moscow, 1961. 19 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Inst of Chemical Machinery-Building); 200 copies; price not given; (KL, 7-61 sup, 242)

Cold casting of apparatus and chemical ... S/852/62/000/000/006/020
B136/B101

made from these materials include: (1) stopcocks and straight-way cocks (40 - 150 mm diameter) designed for pressures up to 30 at and temperatures up to 160°C; (2) heat exchangers made of NL plastic, for various processes in the chemical industry; and (3) centrifugal pumps, absorption columns, mixers, etc. Electrode graphite dust is applied as a filler; p-chlorobenzosulfonic acid, aniline hydrochloride, phenyl methylene sulfochloride or heel from distillation of hexamethylene tetramine are applied as hardeners. The compression strength is 700 - 900 kg/cm² for NL; 550 kg/cm² for 2 FNL, and 1000-1100 kg/cm² for 5EFNL. The cost for small-scale production of chemical equipment from NL plastic varies from 50 to 70 kopecks per kg at a price of 30 kopecks for the raw material. There is 1 table.

Card 2/2

S/852/62/000/000/006/020
B136/B101

AUTHORS: Neugodov, P. P., Klinov, I. Ya.

TITLE: Cold casting of apparatus and chemical equipment made of plastics filled with graphite

SOURCE: Primeneniye polimerov v antikorrozionnoy tekhnike. Ed. by I. Ya. Klinov and P. G. Udyama. Moscow, Mashgiz, 1962. Vses. sovet nauchno-tekhn. obshchestv., 48-55

TEXT: The new casting materials $\text{H}\Lambda(\text{NL})$ with $\text{B}\Lambda\text{M}-\text{B}$ (VIAM-B) resin, $2\Phi\text{H}\Lambda$ (2FNL) with $\Phi\Lambda-2$ (FL-2) furyl resin, and $5\Xi\Phi\text{H}\Lambda$ (5EFNL) with $\Xi\Gamma-5$ (EP-5) epoxy resin as a binder are described. Products of complex shape and large dimensions can be made from these filled with graphite without applying pressure and at room temperature. They are stable against almost all acids and acid solutions except strong oxidants, also against most non-oxidizing acids, basic salts and solvents, and below 30°C withstanding even nitric acid, chromic acid, and free oxygen. The material 5EFNL resists acids, bases, and petroleum products, and remains practically unaffected by organic solvents, alcohols, and hydrocarbons. The products

Card 1/2

NEUGODOV, P.P.

Cold casting of graphite plastics. Trudy MIKHM 22:169-178 1960.
(MIRA 14:1)

(Gum plastics)

(Graphite)

NEUGODOV, P.P.

Construction of heat exchangers from new acidproof casting
material. Med.prom. 14 no.3:29-31 Mr '60. (MIRA 13:6)

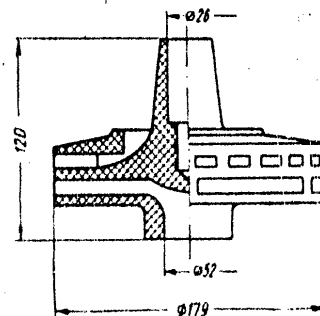
1. Khimiko-farmatsevticheskiy zavod "Akrikhin".
(HEAT EXCHANGERS)

S/184/60/000/004/010/021
A109/A029

Cold Casting of Mashines and Chemical Equipment Using Graphite-Based Plastics

Present production tests include 6 m³ capacity NL graphite plastics reactors for hydrolytic reactions at 100 - 110°C. They will replace lead-plated reactors, whose plating went out of service after 6 months and required 18 tons of lead for repairs every year. There are 5 figures and 3 tables.

Figure 3: Turbine of a Centrifugal Pump Made of Graphite Plastics of the NL Type



Фиг. 3. Турбина центробежного насоса из графопласта марки НЛ.

S/184/60/000/004/010/021
A109/A029

Cold Casting of Machines and Chemical Equipment Using Graphite-Based Plastics

action when an accelerant is used. This leads to the formation of an oxide coating and decreased adhesion, therefore suitable underlayers, i.e., water glass, bakelite, varnish and 6Φ (BF) glue mixed with graphite powder should be applied. A detailed description of the coating process is given. Cast iron vessels of 3,000 l capacity coated by this method stood 5 years of continuous operation. To increase the mechanical properties of mass-produced cocks, valves, centrifugal pumps, etc, the graphite plastics should be vacuum-mixed for 10 - 15 min. At present the "Akrikhin" Plant produces 40 - 150 mm diameter stop cocks and reactors with graphite plastics heat exchangers. This new type of heat exchanger was designed by the author in 1959 and eliminates the use of ice, thus preventing cracks, peeling-off of coating and damages. The heat exchanger operated in alternating corrosive chemicals consisting of 28% hydrochloric acid, 40% sodium nitrate solution and 99% aniline. The production of 80 m² tubular heat exchangers for sulfuric acid plants has started. Figure 3 shows a НЛ (NL) graphite plastics-made centrifugal pump turbine. These pumps operate satisfactorily at -10 ° +70°C in 5%-hydrochloric acid and 7%-sulfuric acid solutions. Adsorption columns are also made of NL graphite plastics. Enamelled mixers were replaced by NL graphite plastics mixers which are used in corrosive enamicals at 120°C.

Card 2/3

15.8210 2109, 2209

S/184/60/000/004/010/021
A109/A029

AUTHOR: Neugodov, P.P., Graduate Engineer

TITLE: Cold Casting of Machines and Chemical Equipment Using Graphite-Based Plastics

PERIODICAL: Khimicheskoye Mashinostroyeniye, 1960, No. 4, pp. 30 - 33

TEXT: The author describes some new types of graphite plastics suitable for casting and requiring no pressing or thermal treatment. Furyl and phenol-formaldehyde-based graphite plastics are of particular interest. Their use as construction material is based on the reaction of the binding component (synthetic resins) and substances effecting its coagulation. A patent was granted for this method on December 6, 1956. The liquid mixture can be poured into chill molds at 10 - 20°C. Equipment coated with graphite plastics can start operation 60 - 120 min after completion. Physical and mechanical properties and the chemical resistance of graphite plastics are cited. 53ФНЛ(5ЕФНЛ) plastics are resistant to acid, alkalies, petroleum, alcohol, hydrocarbons, etc. Objects to be coated should have hard walls with an absolutely clean surface. Graphite plastics containing phenol-formaldehyde, furyl or epoxy resins have a weak acid re-

Card 1/3

NEUGODOV, P.P.

Stopcocks made of NK graphoplastics. Med.prom. 31 no.9:37-39 S '59.
(MIRA 13:1)

1. Khimiko-farmatsevticheskiy zavod "Akrikhin."
(FAUCETS) (PLASTICS)

NEUGODOV, P.P.

DIREKTORSKIY, N.V.; NEUGODOV, P.P.; NIKIFOROV, A.A.

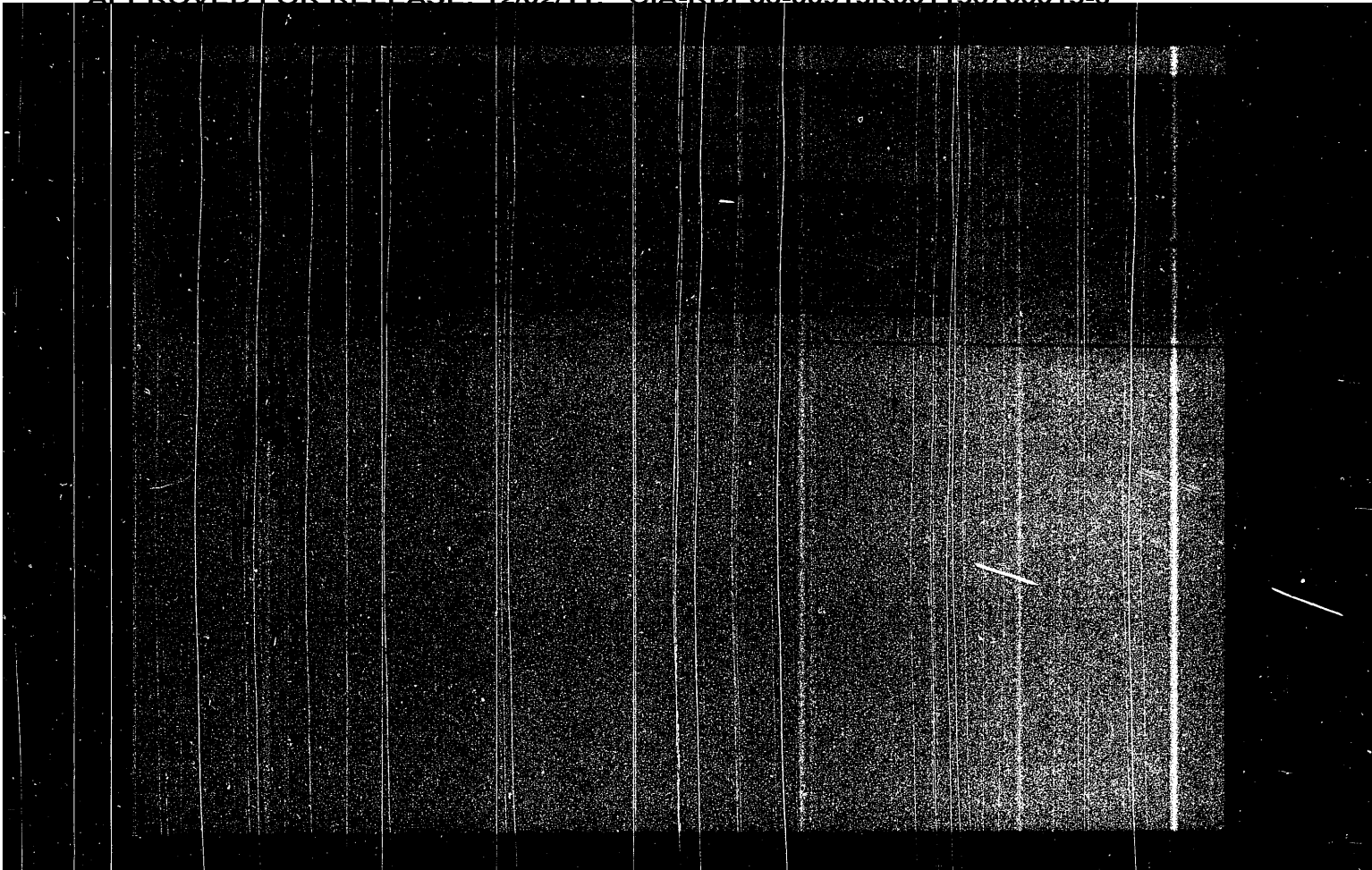
Producing pyramidon at a greater rate. Med. prom. 11 no.2:46-49
F '57 (MLRA 10:4)

1. Khimiko-farmatsevticheskiy zavod "Akrikhin."
(AMINOPYRINE)

NUGODOV, P.P.; DELEKTORSKIY, M.V.

Modernizing existing boiler units. Med.prom. 11 no.1:50-53 Ja '57.
(BOILERS) (MLRA 10:2)

APPROVED FOR RELEASE: 12/02/11: CIA-RDP86-00513R001136700013-6



NEUGODOV, P.P.; DILEKTORSKIY, N.V.

Mechanization of functions requiring a heavy output of labor in the
"Akrikhin" plant. Med.prom. no.3:16-20 J1-S '55. (MLPA 9:12)
(DRUG INDUSTRY,
mechanization in Russia)

KOMISSAROV, O.D.; NAZAROVA, T.N.; NEUGODOV, L.N.; POLOSEKOV, S.M.;
RUSAKOV, L.Z.

Studying micrometeorites by rockets and satellites. Isk.sput.
Zem. no.2:54-58 '58. (MIRA 12:5)
(Meteorites) (Radio astronomy)

BRACHFELDOVA, J.; HORNYCHOVA, H.; MENCIKOVA, E.; SKALOVA, L.;
NEUGEBAUEROVA, L.

Listeria infection in newborn infants. Cesk. pediat. 18 no.10:
896-901 0 '63.

1. II detska klinika fakulty detskeho lekarstvi KU v Praze,
prednosta prof. dr. J. Honstek, DrSc. Ustav lekarske mikro-
biologie a imunologie v Praze, prednosta prof. dr. F. Patocka
KHES Stredoceskeho kraje v Praze, reditalka MUDr. M. Rejskova.
(INFANT, NEWBORN, DISEASES) (LISTERIA INFECTIONS)
(COMMUNICABLE DISEASE CONTROL)

VOCAL, J.; POLACEK, E.; NEUGEBAUROVA, L.; SEBKOVA, J.; Technicka
spoluprace: KRISTAN, M.

Concentration test in premature and young infants. Cesk. pediat.
18 no.9:774-780 S '63.

1. I detska klinika fakulty detskeho lekarstvi KU v Praze,
prednosta prof. dr. J. Svejcar Ustav vyzkumu vyvoje ditete v
Praze, reditel prof. dr. J. Houstek II detska klinika fakulty
detskeho lekarstvi KU v Praze, prednosta prof. dr. J. Houstek
Kojenecky ustav v Praze-Krci; reditel MUDr. K. Zeman.
(INFANT, PREMATURE) (KIDNEY FUNCTION TESTS)
(URINE)

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1. II. detska klinika fakulty detskeho lekarstvi v Praze, prednosta
prof. dr. J.Houstek, DrSc.
(ANESTHESIA OBSTETRICAL) (HIBERNATION ARTIFICIAL)
(INFANT NEWBORN)